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SYDNEY: SATURDAY, MAY 26, 1917.

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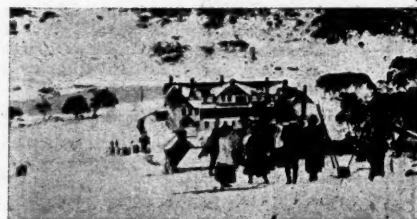
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No. 21.

No. 2 AUSTRALIAN CASUALTY CLEARING STATION, IN FRANCE.

By Lieutenant-Colonel H. S. Stacy, Australian Army Medical Corps, Commanding Officer.

As we are now in our ninth month up at the front, probably a description of the work and conditions of this Hospital may be of interest. As to our location all I can say is, we are in Flanders, and about 7000 yards from the front line trenches, sharing with No. — Australian Casualty Clearing Station the distinction of being the nearest to the line, unless since the advance on the Somme, one of the casualty clearing stations in that area is closer still. Prior to the offensive in July the casualty clearing stations on the Somme were rarely nearer than ten to twenty miles.

On fine days, when German aeroplanes are overhead, we frequently get portions of anti-aircraft shells landing in camp. Quite recently a nose cap landed on one of the wards. Although we are easily within reach, the nearest shell, so far, has been about three-quarters of a mile away. We are never free from the sound of the artillery and machine guns; the windows of the buildings frequently shake with the concussion.

We are situated in open fields, so were able to mould our plans pretty much to our own liking. It was largely constructed by our own men; for this they were specially paraded before Surgeon-General Porter, Director of Medical Services of the Second Army, and highly complimented by him.

We have found our proximity immensely valuable in getting cases shortly after they were wounded. In an abdominal case it frequently means the difference between life and death. We have had the men as quickly as three hours after being wounded, but more often it is five or six. The delay mostly occurs in getting the badly wounded man out of the trenches on a stretcher, and is unavoidable, for it must be remembered the trenches are frequently narrow and twisted. Once he arrives at the Regimental Aid Post, it is frequently possible (but not always, owing to shelling) to bring him back by motor ambulance to the advanced dressing station, then to the main dressing station, and on to the casualty clearing station. At the main dressing station (which in the case of one of the field ambulances ahead of us is situated in quite a well-equipped building, a maternity hospital in fact), the wounded may be detained, if suffering too badly from shock to stand a further journey, or if it is needful to ligature an artery for hæmorrhage. Other small operations may be done there, but I think the feeling in the medical service in this area, where the casualty clearing stations are so close up, is, that the sooner the patient gets to the casualty clearing station, where there is a full staff, proper

lighting and other surgical facilities, the better.

We evacuate cases to base by ambulance train twice a week. This draws up right alongside the Hospital, and the patients are carried to it by trolleys on rails. About 10% to 12% of the patients are discharged direct from us to their battalions.

Staff.

Shortly after our arrival at the front, Lieutenant-Colonel MacLaurin and Captain Burkitt replaced Majors Sweet and Browne. Lieutenant-Colonel MacLaurin remained three months, and then left for Australia; since then Captain Burkitt has been Surgeon Specialist, with Major A. D. Barton second Surgeon. Two months ago Major C. F. Pitcher joined us as Second in Command and as Chief Physician. Captain Craig for the last month or so has acted as Company Officer, doing no medical work beyond giving anæsthetics. His position is that of a continuous Orderly Officer. The system ensures better discipline than that of officers being orderly officers in rotation. Captain Allester has interested himself particularly in anæsthetics. Captain Pearce was temporarily detached for some months, to assist in the surgical work at a casualty clearing station on the Somme. Captain Collins, who completes the list of medical officers recently left us, I regret to say; he was made regimental medical officer to a battalion. As he had acted as my Adjutant, since the formation of the unit, his loss is much felt. The Quartermaster's department was under the control of Honorary Captain T. de C. Armstrong.

Attached to us we have a complete dental unit, consisting of Lieutenant Amphlett, two Staff Sergeants, and an orderly. Practically every variety of dental work is done. When we are clearing for Australians our dental work is not so heavy, as each Australian Imperial Force field ambulance has a Dental Section; not so the British.

Chaplains.—Three are allowed for in establishment, but latterly we only have had two, quite sufficient for all needs. A Church of England, Rev. G. K. Tucker; Roman Catholic, Father Clarke. In addition to ordinary chaplain's duties, they proved most useful in writing letters to relatives of the wounded. These are always of a great comfort to parents.

Sisters.—Shortly after opening, we were allotted seven Sisters, of whom the only two of the original ones still with us are Sister Bessie Pocock (Sister in Command), and Sister Sorley. The Sisters have been of inestimable benefit, and the work could not possibly have been done so efficiently without them.

Warrant-officer McFayden, in his capacity as Wardmaster, arranged with the Company Officer the roster for the Nursing Orderlies.

Hospital.

Although in the "establishment" of a clearing hospital it is set out that out of 15 general duty

orderlies two may be carpenters, other skilled trades are not specified. This, I think, is a great mistake. A few capable engineers or metal workers are of untold benefit; fortunately we had taken the precaution to secure these on mobilization. Another skilled tradesman I would like to see on the establishment of a casualty clearing station is a boot-maker; although theoretically no patients should reach the front with flat feet, *hallux valgus*, etc., still in practice foot deformities are not at all uncommon, many of which could be relieved by suitable alterations to the boots.

Our workshop staff consisted of Corporal Alderton (Engineer at the Sydney Children's Hospital) and Privates McMurdie and Hards. Here the most modern metal splints were made, altered and repaired; surgical instruments sharpened and repaired, a daily round being made of the Hospital, specially to collect those that had a dull edge or needed attention in any way, and here the 5-h.p. engine and dynamo that lit the whole camp electrically, and supplied the current for the X-ray and high frequency work, was situated.

Acetylene generators, to furnish lighting in case the engine broke down, were also made by them; stoves for heating the wards, together with innumerable other minor jobs, also formed part of their work. Convalescent patients, who were mechanics by trade, contributed valuable aid. So impressed was Colonel Rigby, Surgeon Consultant to the 2nd Army, that he endeavoured to persuade the Director of Medical Services to provide a special mechanic for each casualty clearing station in the area.

Electric Lighting.—Although some of the other casualty clearing stations had electric light for their operating theatre, there it stopped. Not until a couple of months ago was electric lighting made more general, and a special electrical attendant added to the establishment. I am glad to say we brought both our attendant and plant with us from Australia. The total number of lamps in the installation reaches 140, ranging from 16 candle power to 100 candle power.

X-ray Attendant.—We brought with us from Australia Private Jones, who is a skilled electrician, to devote his whole time to the X-ray apparatus. Part of the large operating theatre hut was partitioned off for his room, and our forethought has been justified over and over again. With the aid of an excellent X-ray apparatus and up-to-date table, he has turned out work of an extremely high standard, a standard that I have never yet seen excelled. Practically all cases of fracture or suspected fracture were radiographed, and nearly every case of foreign bodies. In a great many cases the foreign body was localized to a fraction of a centimetre if necessary. I think I am right in saying that about 80% of foreign bodies were removed here at the time of the operation. The saving to patients, of life in some cases, and to others of further operations, will be readily understood by those familiar with war surgery. When the patient was evacuated to the base, his radiograph was always sent with him. Up to date 1150 plates have been taken

of 840 patients. In addition there were innumerable screen examinations.

Latterly, through the ingenuity of Alderton and Jones, we have added a high-frequency apparatus. This we have used for the treatment of trench feet with astonishingly good results. It was made out of materials ready to hand, the only articles purchased being six broom handles to serve as uprights for the resonator.

Operating Theatre.—By day a Sister was in charge of this, by night Staff Sergeant Bennett, who had had many years operating theatre experience at Royal Prince Alfred Hospital, Sydney. Different nursing orderlies were attached to them from time to time, and proved remarkably efficient and adaptable. There were three tables, and over each two rows of electric lights in reflectors, a row on either side of the mid line. In this way the minimum of shadow was obtained when operating. As there was light equivalent to 300 candles over each table, it will be seen that the surgeons had no cause to grumble. Just now we are placing underneath the table a zinc reservoir insulated, except on its upper surface, with asbestos sheeting; this is filled with hot water in order that a patient may be kept as warm as possible, a most necessary precaution when one realizes the intensity of his shock and the severity of the winter. The walls and ceiling were covered with white enamel paint.

Numerous articles of furniture for the theatre were made in our workshop, both wooden and iron; one of the most valuable was a support for the cylinders of nitrous oxide and oxygen, to enable them to be manipulated by the anaesthetist with greater ease. Another was the warm ether apparatus in which the ether passes through a spiral copper tube, immersed in the water of a service hot water tin insulated on the outside with asbestos.

The water for the operating theatre was provided in two small reservoirs containing 84 gallons in all. These were sterilized daily by super-heated steam conveyed to them from our Australian Wiles' steam cooker close by. This was of inestimable advantage.

Splint Room.—This adjoined the operating-room, and was amply stocked with all kinds of most modern splints, most of which we had made ourselves. Others we obtained from the advanced dépôt medical stores in a town a few miles further back.

Since arriving here we have received 500 metal splints from the Australian Red Cross Society, made from moulds supplied by us, before leaving; 500 more are *en route*.

To Colonel Robert Jones, of the Royal Army Medical Corps, the medical service owes a debt of gratitude for his insistence again and again upon the value of the skeleton metal splints. Modifications of these have been introduced occasionally, but not always, of increased value. Latterly, we have found the advanced dépôt medical stores well equipped with every variety of splints one would ever need.

Wards.—At first the patients were in hospital marquees arranged in pairs end to end, but as the weather became more severe these were gradually replaced by huts of two patterns, Tarrant and Latapie. These were 60ft. long and from 15ft. to 20ft. broad. Situated between each pair was a pantry common to both. The hut wards accommodated about 28 beds, and, like all the rest of the hospital, were electrically lit, having also portable electric lamps to carry to the bedside. For less serious cases and for convalescents, there were arranged, either in groups of four or five, hospital marquees, laced together with black canvas, to provide arched gutters beneath the junctions to carry off the rain. A ward composed of five marquees laced together readily accommodated 80 patients lying on stretchers on the ground.

Kitchen.—This was built around a Wiles' steam cooker, which we had brought with us from Australia to Egypt, and thence to France, after much trouble. Units proceeding from Egypt to France were not supposed to take wheeled vehicles. This cooker proved extremely useful, and, as in Egypt, was the admiration of all visitors.

All the boiling is done by means of super-heated steam. Its advantage to the operating theatre has already been mentioned. Latterly, following the example of the battalions in the trenches, we have constructed some thermos boxes, in which food can be kept hot for those men who are detained from their meals.

Orderly Room.—We were under the direct authority of the Director of Medical Services of the Second Army, and to that and other offices made innumerable returns as follows:—Daily, 9; weekly, 18; monthly, 6.

Immediately a man is put on the "dangerous ill" list, it is notified to the War Office, London, and a progress report is sent in three days' time and then in seven days' time. An officer's death is reported by wire; that of a non-commissioned officer or man by letter. Hospital State return (A.F. 36) is rendered weekly; this gives the name and disability of every patient in the hospital. The Orderly Room is in telephonic communication with the rest of the Second Army. Code words are supposed to be used with different units, but this is not always practicable. This is one of the hardest worked parts of the whole unit, and it has to its credit the record of having made exceedingly few mistakes.

Sanitary Section.—As in every camp, this is one of the most important branches. The method adopted of dealing with refuse and faeces was that of incineration. Our incinerator was made of petrol tins filled with clay, and lined on the inside with bricks, the bricks being a later and not absolutely necessary addition; angle-iron bars formed the floor; the chimney was composed of a number of oil drums. On top of the incinerator were let in a couple of oil drums. These were kept filled with water. In this way the heat of the burning refuse was used to warm water for the washing of bed-pans, etc.

The incinerator was a most efficient one, never giving any trouble. By 6 p.m. at the latest all camp refuse had been completely burnt. The latrines were so arranged as to separate the urine and the faeces; the urine was taken joyfully by the adjoining French farmer, who used it for fertilizing his ground.

Water Supply.—The first couple of months we relied upon four wells, dug in the camp, going down about 25ft., but analysis showed it to be so hard that we were put on to a supply coming from a reservoir in which the water was filtered and chlorinated.

By securing galvanized iron tanks we also collected a fair amount of rain water—for the tubular boiler of the cooker this was essential. A boiler, tank and shower were also provided, with which patients and personnel could secure hot water for a shower; to economize fuel, this was limited to twice a week.

Quartermaster's Department.—In addition to the ordinary duties they had the distribution of the innumerable articles obtained from the branch of the Australian Red Cross Society, about 20 miles behind us. Thanks to this Society, which partly took over the care of the Army Medical Corps personnel, from the Australian Comforts Fund, our own men, as well as patients, had their meals supplemented, to some extent, by such things as milk, preserved fruit and biscuits. The Red Cross extras, both in food, linen, clothing, etc., meant an immense amount of additional comfort to the patients. No words of ours can be too strong in praise of this wonderful organization, also in the readiness and courtesy with which their representatives, Lieutenant-Colonel Murdoch, Lieutenant-Colonel Hayward and Messrs. A. and F. Du Boise and Kiddle met us. In addition to gifts in kind, cheques for £10 or £20 were sent along, as needed; with this money innumerable minor articles were purchased that made all the difference to the efficiency of the Hospital.

Washing.—Unfortunately I was unable to persuade the Director of Medical Services to have a building constructed and washing done in the Camp. Consequently it had to be sent out and divided among six or eight French women. These, with their limited accommodation, found difficulty in drying it, and we were periodically short of clean linen.

Rations.—The army rations were drawn from a dépôt daily about ten miles away, and were of a splendid quality; the beef seemed to be mostly Argentine, the mutton mostly New Zealand.

Fuel.—During the winter months we drew, when possible, six tons of coal a week, with the occasional addition of some coke. It needed all this to keep the Hospital warm.

Soiled Clothing.—This, unless it was beyond hope, was called for several times in the week by the Salvage Corps, sent down to the base, there cleaned and made up afresh. This conformed with the practice throughout the Army, as far as I could see, namely avoidance of waste.

Disinfection.—Each casualty clearing station is

provided with a Thresh disinfectant. This was most efficient, and practically never got out of order.

Transport.—Being now a dismounted unit, our only vehicles were three motor lorries. When these were of the Commer type they were absolutely satisfactory. Latterly they have been replaced by Swiss Bernas, which have given nothing but trouble. We have no ambulance cars attached to us, but, if required for official purposes, one can always be obtained by ringing up a motor ambulance convoy in the adjoining town.

Laboratory Examinations.—For these we rely upon the Canadian Laboratory under Captain Ellis. It is situated about five miles at the back of us, and does invaluable work for the 2nd Army.

Climate.—Most of the summer months were pleasant, but during January and early February the conditions have been very rigorous. The thermometer on several occasions has registered 24 degrees of frost. For the last few weeks ponds and ditches have been frozen. Skating is in vogue, and there is snow everywhere. Under these conditions it will be realized how difficult it is to keep the wards and operating theatres satisfactorily warm. To show the difficulties under which some of the work is done, I may mention that during the day the fixing bath in the X-ray developing room is frequently frozen. It is commonly said to be the severest winter for twenty years.

Recreation Hut.—To the energy of the Reverend Tucker we owe a good and well-equipped recreation hut. In portion of this Church services are held.

General.—Being close to the line, we are kept closely in touch with military events near us, and are usually aware if a raid is to take place by our troops. As to the outside world, we get the London newspapers at breakfast time—the day after they are published. Mails from Australia usually come about once a fortnight, taking on an average about seven weeks; those from England three to six days.

During the winter months there have been weekly meetings of the 2nd Army Medical Society, at which consultant surgeons and physicians and medical officers from the battalions, field ambulances, and casualty clearing stations meet and discuss papers read on surgical and medical subjects.

Consultants.—Surgical consultants are attached to each Army Area. We had at first Colonel Rigby, and later Colonel Gordon Watson, C.M.G. We also had the following medical consultants: Colonel Gallo way, and afterwards Colonel Soltan, C.M.G.

(To be continued.)

ANAPHYLAXIS—ITS CLINICAL SIGNIFICANCE.

By Helen M. Mayo, M.B., B.S.,
Adelaide.

Introduction.

It is with much diffidence that I speak on this subject to you; I have no record of work done. I

can only give you a brief resumé of the facts, and of the most recent theories concerning them.

It is a matter of common knowledge among medical practitioners that the injection of horse serum into man may be attended with consequences sometimes unpleasant, rarely fatal.

It was in the early days of antitoxin that the healthy child of a German professor died suddenly after a prophylactic dose of serum. It was a good many years ago that Dr. Gillette gave antitoxin to an asthmatic. He says: "the patient was a man of 52, the subject of asthma. He asked me to administer diphtheria antitoxin to him, in the hope that it might cure his asthma. I administered 2000 units under the left scapula, with the usual precautions. He had about completed dressing when he said he had a pricking sensation in his neck and chest. Soon he sat down and said he could not breathe, nor did he breathe again. His pulse at the wrist remained regular and full for some time after respiration ceased. He had a mild degree of œdema and cyanosis of the face. He died in tonic spasms 10 minutes after injection. Autopsy revealed no palpable cause of death."

The same phenomenon occurs in animals, but is much more constant. Vaughan tells how, in the standardization of diphtheria antitoxin it soon became evident that the guinea-pigs which survived one test could not be relied upon for a second one. In the late nineties Parke, Davis and Co., large manufacturers of antitoxin, ascertained this fact, and offered to supply the Hygienic Laboratory of the University of Michigan with used guinea-pigs at a small price. The offer was accepted, but the animals were found to be dear at any price, as they suddenly and unexplainably died when treated with horse serum.

Definition.

This condition, called variously anaphylaxis (Richet), *Allergie* (von Pirquet), hypersensitiveness, etc., is defined as that state when the organism, in consequence of previous treatment with an antigen after a period of incubation, becomes hypersensitive to the same, or to a closely related substance, and when this condition can be passively transferred to fresh animals by the serum or organ extracts of the sensitized animals.

This condition has been investigated by numerous workers of late years, and the reaction has been found to be specific, or nearly so, as if an animal be injected with a protein, e.g., egg white (hen's), the reinjection must be also egg white (hen) if the phenomenon is to be produced. If another protein of closely related composition is used for the reinjection, e.g., egg white (duck), a reaction will be obtained, but it will be less marked.

Again, the period of incubation necessary for the development of the reaction has been shown to be not less than eight days, and may be as much as 14, dependent to some extent apparently upon the amount of antigen injected, though this is disputed.

The duration of this sensitized state is not certainly known, as in man, and also in some other animals, the reaction may not occur at all. It is,

however, known to persist for several years in many individuals. In Jenner's case of anaphylaxis on revaccination 30 years had elapsed.

The fact that this sensibility can be conveyed passively to another animal by injecting the serum from a sensitized animal, and that in guinea-pigs the hypersensitiveness may descend from the maternal guinea-pig to its young has been proved, and is of much interest. It may possibly throw light upon hereditary tendencies to disease.

The nature of the protein used for injection is immaterial from the point of view of the reaction. The results are the same whether horse serum, egg white, milk, or any other protein be used. It must, however, be a protein; no other compound will cause the same train of symptoms.

Anaphylaxis in Animals.

The character of the symptoms observed in different species of animals vary, as does also the susceptibility of different animals to the reaction. Guinea-pigs are much affected, and have a definite train of symptoms. Three stages are observed:

(1) That of peripheral irritation: the animal scratches itself, and is agitated.

(2) That of paresis: the breathing is short, and there is a weakness of the muscles of legs and other parts of the body.

(3) Convulsive stage: the respiration is difficult. Death almost always follows when this stage is reached.

Death may, however, be arrested by the intravenous injection of atropine, if given before the action of the heart ceases. In the dog, which is more refractory to the reaction, diarrhoea and vomiting occur, and a sharp fall in blood pressure after an initial rise. There is weakness of the legs, and though recovery occurs more often than in guinea-pigs, the dog may die.

In rabbits there is still less reaction, but here again the reaction may be induced, and death may follow, the symptoms being somewhat similar to those in the dog. What has been called the Arthus phenomenon, an increasing reaction at the point of injection with each successive dose, was first noted in rabbits.

Marked decrease in the coagulability of the blood and leucopenia is present in dogs suffering from anaphylaxis. In these animals the symptoms may be obviated by the intravenous injection of barium chloride.

Anti-anaphylaxis is the term applied to a refractory condition following reinjection. If the animal lives, it is found that for a time following re-injection further doses may be given without causing reaction. This fact is utilized to obviate severe serum sickness in sensitized individuals. The reason of its occurrence is still obscure.

Mechanism of the Reaction.

Much work has been done on this aspect of the condition, and it has been shown to be due almost entirely to action on unstriated muscle. The variation in symptoms in different animals seems to be dependent upon anatomical differences.

In guinea-pigs respiratory symptoms predominate. It is found that these animals possess bronchioles so rich in muscle fibres that complete closure can be effected. The post-mortem findings show that this is what has happened; the animal dies with its lungs distended with air, but unable to breathe. In the dog, however, the muscular tissue of the bronchioles is sparse, and respiratory symptoms are slight, the intestinal and vascular fibres being most affected. The manifestations in man may perhaps also depend partly upon anatomical peculiarities in the individual, but we have no definite knowledge on the point at present.

Theories of Anaphylaxis.

The word anaphylaxis—"without protection"—was given to this phenomenon by Richet, and signifies the direction of the first attempts at explanation. It was held that by the first injection the blood lost some protection originally its own. As more work was done on the subject, and instances multiplied, this conception was found to be untenable, and the idea developed that the reverse was the case, and that this reaction indicated a beginning of the defence of the body, and the formation of some agent in the blood of a specific character.

The work of Vaughan, Besredka, Biedl and Kraus, Rosenau and Anderson, and many others led to a great development of the subject, and Vaughan elaborated an ingenious theory, which gained considerable notice.

He stated that all proteins consist of one central molecule—toxic in character and probably identical in all proteins—and of secondary groups, probably specific to each variety. He stated that anaphylaxis was due to the parenteral digestion of proteins, and that this digestion was brought about by a specific ferment, elaborated within the body in comparatively small quantities, that the elaboration of this ferment followed the first injection of the protein, and that the 8-10 days of incubation was the time needed for its formation. The parenteral digestion of the protein, when given after the ferment was formed, would cause a disruption of its molecule, with liberation of the toxic group. He explained acquired immunity by postulating the formation of sufficient specific ferment to cause immediate disintegration, not only of the several groups in the protein, but of the component parts of each, thus destroying the toxic group.

He attempted to prove this theory by a series of experiments with substances obtained by the treating down of proteins by agencies chemical and thermal. The end products, on being injected into animals, caused symptoms resembling anaphylactic shock. The injection of Witte's peptone caused similar symptoms, and he explained this as being due to the presence of the toxic group free in the compounds, and hence as a confirmation of his theory.

This theory has never been generally accepted, and of late much work has been done, in connexion with immunity, on the formation of specific ferments in the body, when foreign proteins are in-

troduced. The work of Abderhalden in attempting to ascertain the presence of unusual proteins in the body, *e.g.*, in cancer and pregnancy, by demonstrating dialysable ferments in the blood, will be remembered in this connexion.

It is a subject closely allied to that of anaphylaxis, and the fact that the presence of specific ferments in these cases has been disproved, goes far to displace Vaughan's theory—and an immense amount of work done by others has confirmed this, and points rather to the formation of a specific precipitin.

The reaction is believed to be something of this nature. The substance formed in the blood after the first injection reacts with the protein to which it is specific and forms a precipitin. This compound has the power of adsorbing, or attracting to itself, the antiferment of the blood, which normally inhibits the action of the trypsin ferment of the blood. When the antiferment is thus thrown out of action, the trypsin begins to digest the protein of its own blood serum, with the resulting liberation of the toxic molecule.

Up to the present no generally accepted explanation has been given of the phenomenon of anaphylaxis. More recent work has gone to show that all serum reactions, *viz.*, agglutination, precipitin formation, complement fixation, etc., are very closely related, and are in reality different expressions of some central reaction, which at present we can estimate in no other terms.

Clinical Applications.

In 1902 von Pirquet saw the case of a child who, receiving a second dose of serum ten days after the first, forthwith developed a rash. This suggested to him the possible relation of such phenomena to the infectious diseases within incubation period, and subsequent development of fever and rash. He and Schick studied the subject in relation to all infectious diseases, especially measles, recurrent fever, smallpox, streptococcus infection, and reactions to cowpox virus, to tuberculin and to mallein, and finally they compared these with serum sickness. They pointed out that a single injection of serum or protein may produce symptoms, that this indicates previous sensitization by injection or possibly by disease. This may be of diagnostic value in the latter instance, as indicating a previous infection with the disease.

Von Pirquet classified the reactions obtained after protein injection or after infection in three groups:—

Group I.—Cases in which it takes 8-10 days for the reaction to develop. Serum sickness appears in this group, as do those diseases, *e.g.*, measles, whooping cough, smallpox, chickenpox, etc., in which the appearance of symptoms depends upon the production of antibodies.

Group II.—Cases in which the reaction appeared in from three to seven days. In this class are included attacks of pneumonia, erysipelas, symptoms following serum injection after the lapse of

several months or years, when the antibody has presumably left the blood stream, and is in the cells. The cells once stimulated are "keyed up" to react more quickly. This he calls the accelerated reaction.

Group III.—Cases in which the immediate reaction, followed, *i.e.*, within 24 hours. It indicates the presence of antibody in the blood-stream, with rapid bio-chemical change.

Reactions which develop between 24 hours and 3 days he calls early torpid, and he states that it is possible to have an immediate, and then an accelerated reaction following a single reinjection, as the sensitized cells react subsequently to the antibody formed after the first reaction is over.

Vaccination forms an excellent illustration of these changes. A colony of micro-organisms is formed on the skin. It is a day or two before apparent growth takes place, and it then continues until vesicles containing infective material have been produced. This occurs about the eighth day. Two days later antibodies, which have been in process of formation from the time of ingestion, have succeeded in destroying the virus, and the yellow pustular scab will no longer convey infection, and unless secondary infection occurs, healing promptly follows.

If vaccination is practised some time later, it is possible to have an immediate reaction, such as that recorded by Jenner, after thirty years. On the other hand, there may be accelerated reaction, a pustule and redness, developing within a few days, and rapidly disappearing. For this reason, it is wise to examine a person re-vaccinated within a few days, as all evidence of the reaction may have disappeared in a week, and what is really immunity may be considered to be insusceptibility.

The tuberculin test of von Pirquet, the luetin test of Noguchi, and the Mallein test are all regarded as anaphylactic phenomena, and are used for demonstrating the hypersensitive state in persons who have been affected by these proteins.

The Schick test for diphtheritic immunity does not come under this head; it is concerned with the antitoxin present in the body, and is a reaction quite distinct from that of anaphylaxis.

Clinically, the most important manifestations of anaphylaxis are those of serum sickness. Vaccine administration, though possibly controlled by the same principles, seldom develops serious symptoms, and consequently is of little importance from this point of view.

Some individual idiosyncracies in diet are anaphylactic in nature, and will be considered.

Serum Sickness.

Serum sickness may develop in 8-10 days after the first, or more rapidly after the second injection. The symptoms include the appearance of a rash and joint pains. Three types of rash are recognised:—

(1) Urticarial. This form occurs in from 70 to 90 per cent. of all the eruptions. It usually begins at the site of injection, and is markedly irritable.

It probably corresponds with the stage of peripheral irritation in the guinea-pig.

(2) Multiform rashes; circinate, blotchy, or morbilliform. They may be distinguished from the eruption of measles by the facts that they appear first at the site of injection, that they are not preceded by a prodromal fever, and that Koplik's spots are present.

(3) Scarlatiniform rashes. These forms are very difficult to distinguish from the rash of scarlet fever. The following points assist in the diagnosis:—(a) they begin at the site of injection; (b) there is absence of vomiting and high pyrexia; and (c) free desquamation does not follow. Severe serum sickness is, fortunately, rare. Thirty cases have been recorded, but many probably have remained unrecorded.

Antitoxin Administration.

The questions which next arise are: When can antitoxin be given safely? What precautions can be taken to avoid serious trouble?

In a given case, how are we to know what to do?

Antitoxin may be given as a prophylactic or therapeutic agent. In diphtheria the latter use predominates; in tetanus the former; while in cerebro-spinal meningitis its use is exclusively therapeutic.

Antitoxin Therapy in Diphtheria.

If there is reason to believe that the patient is not sensitive to horse protein, either because of a previous injection of antitoxin, or because of an idiosyncrasy, e.g., horse asthma or hay fever, antitoxin should be given at once, and in full doses.

If, however, a previous dose of horse serum has been given within a period of months to two or three years, or if there are other indications of increased sensitiveness to horse serum, it is well to take certain precautions in its administration.

In tetanus and cerebro-spinal meningitis, the necessity for the antitoxin is usually so great that except in cases of known susceptibility, the risk is greater from the disease than from a possible anaphylactic shock.

In prophylaxis, however, more heed may be given to this risk, and in the case of diphtheria it is only advisable to give prophylactic injections to those who have been closely associated with the disease. 500 to 1000 units may be given, and this protects only for four weeks. For tetanus, on the other hand, during the war an immense amount of prophylactic antitoxin has been given, with such excellent results and so little serum sickness that the risk must be considered to be slight.

Precautions to be Used in Sensitized Persons.

One may determine if a person is sensitized to horse serum by scratching the cuticle and rubbing in horse serum. If positive, redness will appear in fifteen minutes. When this occurs, or when, from other observations it can be ascertained that hypersensitiveness may be present, it is well to administer 0.5 c.cm to 1 c.cm of antitoxin, and then to wait for an hour or two before giving another injection. This may be one or more small injections, or a

larger one, as a condition of anti-anaphylaxis has been established, which will prevent the development of dangerous symptoms. Antitoxin should always be given slowly, especially in sensitized persons.

Antitoxic action takes place most rapidly when the administration is intravenous or intramuscular. The subcutaneous route is less rapid. Hence it follows that where anaphylactic shock may develop the last is the safest; but where serious toxæmia, due to the disease, is present, the more rapidly acting routes are preferable. Indeed, in tetanus, the antitoxin when used therapeutically is given not merely intravenously, but by intracerebral and intrathecal injection. In these cases, though anaphylaxis may develop, the risk is slight in comparison to that of the toxæmia, and the same rule applies to the serums for cerebro-spinal meningitis. The concentrated form should always be employed when possible.

Atropine and caffeine may be given to counteract the symptoms of anaphylaxis, and it has been confidently affirmed that the administration of ether will obviate all danger. This has lately been disputed.

It has been suggested that serum for prophylactic use should be derived only from cattle, and that for curative use only from horses, as then the danger of reinfection following prophylactic injection would be obviated. There are some technical difficulties in the way of this, but there is no doubt that it would be of considerable advantage, and that the value of a cattle antitoxin to those sensitive to horse protein would be considerable.

Personal Idiosyncrasies.

It was found that when guinea-pigs were fed with unusual proteins they became anaphylactic to them. It has also been observed that the blood of races whose staple protein food is mutton, shows a sensitization to sheep protein.

This suggests that the urticarial rashes observed in certain individuals after the ingestion of special kinds of food may be anaphylactic in nature. Eggs, pork, green peas, strawberries, etc., are known to cause this in different people, and may possibly indicate an increased permeability of the intestine to certain forms of protein, and hence parental protein disintegration. It is thought also that certain explosive diarrhoeal conditions following the ingestion of particular vegetables may be of a similar character, and that infants may thus become sensitized to the proteins of cow's milk.

I wish that I could have given you the pleasure that I have had in reading up this interesting subject, but can only hope that this summary is sufficiently intelligible to be of interest.

References.

- Vaughan: Protein split products and their relation to immunity and disease.
- Rosenau: Preventive Medicine and Hygiene.
- Kolmer: Infection, Immunity and Specific Therapy.
- Dean: *Lancet*, January 13, 1917, Mechanism of Serum Reactions.
- Wyard: The Phenomena of Anaphylaxis, *Lancet*, January 20, 1917.

We are indebted to Dr. Aspinall for the following information, which was contained in a letter addressed to him by Lieutenant-Colonel Hugh Poate, and dated March 9, 1917. Lieutenant-Colonel Poate had been suffering from sub-acute rheumatism, but was recovering when he wrote. He complained of the weather being very trying. "At present a fair imitation of a blizzard is in progress, and the winter right through has been very severe. In fact, the consensus of opinion is that it is the worst for 30 years past. We are on the move once again, and the Canadians are taking over our hospital here (Brighton) to allow of our early departure over the way. Work here has to me been most interesting, and as I have until now been 'the' constant factor in a changing staff, I have had the bulk of the work to do. In four months, from November to February, we had 407 operations in the theatres, of which I did 136. There was a good variety in the work, but compound fractures proved the most interesting, and as I have X-ray prints of most of my cases at about monthly intervals, I will one day be able to show you some of the very decent results obtainable. In addition to this hospital work, I have been visiting London each week for two months past to see what I could of up-to-date military orthopedics. The idea of this work being done by one surgeon from each State originated with General Howse, and I was fortunate in being selected for New South Wales. Roehampton and our own No. 2 Auxiliary Hospital at Southall were in the regular itinerary under the guidance of Lieutenant-Colonel Openshaw. I also went regularly to the Military Orthopedic Hospital at Shepherd's Bush, where Colonel Robert Jones, of Liverpool, exercises the guiding hand. With Openshaw we dealt exhaustively with all amputation cases and their fitting with artificial limbs. With Jones we delved into true orthopedic work as regards treatment and training of deformities of all sorts. It was altogether a most liberal education, and I hope I have made the most of the very exceptional opportunity that came my way, and that the experience I have gained may be of some practical use on my return."

Lieutenant-Colonel Poate refers to the experience of a brother officer who had been with the No. 1 Advanced Dressing Hospital, and had then joined the Imperial unit in France as a venereal disease expert. This officer found that the methods in France differed considerably from those followed at Bulford, and were more like the methods employed in Egypt. He held the opinion that the treatment of syphilis, as carried out at Bulford, was almost "perfection." Every precaution was taken to prevent catastrophe, both immediate and remote, in the form of arsenical poisoning. Every patient was weighed before each injection; his urine was examined, and watch was kept for rashes. Treatment was suspended on the slightest sign of danger. The weight showed whether the course was agreeing with the patient. No deaths had been experienced in England, but there had been deaths in Egypt, and the officer spoke of deaths in France. At Bulford the second injection was given after the lapse of one week, while in France and in Egypt the intervals between the injections were four days. Every new patient was paraded before the dentist for inspection and treatment, if found necessary. By care in regard to the dosage of mercury, and to the methods of injection, a fair condition of the mouth was obtained. The average man undergoing a course of treatment remained fit and well throughout. This officer had charge of a hospital containing 1,700 patients, and had a staff of 16 medical officers to look after them.

Lieutenant-Colonel Poate continues:—"Ken Smith has just come back from France to take over the command and reorganization of our Venereal Diseases Hospital at Bulford, and is to receive his temporary full colonelcy, and the job is fully worth the rank, too, from all accounts. Earle Page, of Grafton, who has been operating surgeon to a casualty clearing station, has written me a couple of interesting letters. He talks of the work there as being gross surgery, the amount of work, of course, depending on the activity in the firing-line. After one small 'stunt' they had 60 cases between 1 a.m. and 8.30 a.m., working two tables. Four of these were head cases needing trephining. The usual rule is to trephine if there is a compound fracture of the outer table

of the skull, or in any obvious simple depression—the inner table is usually found splintered and often depressed—if the dura is intact, it is left so, unless there is obvious intracranial hæmorrhage. The edges of the wound are always excised down to the bone before suture. Head cases are kept a week before they are evacuated. In perforating wounds the track is cleaned as well as possible of débris, and a tube inserted. The patient is then sent on at once to the base for an X-ray examination. In joint wounds they excise down to the capsule, remove the foreign body, if it has not gone through, and wash out with 5% saline solution or with peroxide, and then with ether, then put a drain down to but not into the joint, with a salt pack in the wound. In other cases all wounds are excised and all dead or damaged tissue removed. The foreign body is removed, if accessible, and free drainage is established with saline irrigation, or with eusol packs.

"George Bell has just gone across to the surgical staff of the No. 2 Australian General Hospital, after having been with us for three months or so. Please remember me to all old friends."

The following are abstracts from a letter addressed by Lieutenant-Colonel W. E. Kay from "somewhere in France," to a colleague in England. The letter was written on February 11, 1917. Lieutenant-Colonel Kay refers to Captain C. K. Kellaway ("the lucky dog"), who had ten days' furlough and three weeks in a convalescent home after a dose of the "flu."

We have been in a forward area now for about three weeks, and are having a fairly quiet time, so the old hands tell me. We are running the Advance Dressing Station for the whole Division, the arrangement being nowadays that one ambulance, strengthened by the stretcher-bearer squads of one or both the other ambulances of the Division, according to requirements, clears the whole Division. Meanwhile, the other two ambulances stay in a back-rest area and form Divisional Rest Stations or Corps Collecting Stations, holding cases that will be better in a few days, and then returning them to their units. No man is off the strength of his unit until he goes to the Casualty Clearing Station, i.e., outside the Army Corps area. Ambulance work here is, of course, quite different to our experiences of the old Peninsula. The Regimental Aid Post is about 400 to 800 yards behind the front line, and we have several "forward posts," where the Medical Officer and sufficient men for stretcher squads are kept all the time between us and the Regimental Medical Officer. The Ambulance Headquarters is about 2½ to 3 miles from the firing-line.

Small trollies on the narrow gauge line are used for carrying men on stretchers. The line runs up as close as possible to the firing-line. When the patient reaches us at the Advanced Dressing Station he is transferred from the narrow gauge to the ordinary train, after having been "tonicked" or dressed, etc., as the occasion requires. Trains leave here twice a day, or more frequently if required, and urgent cases are sent along to the Casualty Clearing Station by car on a good road. On an average, a wounded man should be in the Casualty Clearing Station, in our sector, at any rate, about four hours after having been wounded, but the *cognoscenti* tell me that this is an unusually well supplied sector, and that evacuation is very rapid here.

Anyhow, after doing our very best for a man, you can imagine the amount of shock a wounded soldier endures on these cold days and nights, and really most of the patients on reaching here require treatment more for surgical shock than for their wounds.

We are fairly comfortably housed in canvas huts, but even there we cannot get comfortably warm, unless sitting on a stove. God alone knows how that everlasting marvel, the infantryman, manages to exist these days, let alone to raid the enemy's trenches successfully. The poor Belgians have my sincere sympathy; they one and all resemble Bairnsfather's Alf, with mufflers, gloves, overcoats and icicles hanging from their moustaches and noses. . . .

I saw Bill Lowe two days ago. He is very well.

The Medical Journal of Australia.

SATURDAY, MAY 26, 1917.

The Army Medical Corps Comforts Fund

Voluntary effort usually suffers from a want of centralization and co-ordination. The generous naturally desire to perpetuate their pet schemes, and are little willing to bury their endeavours in one large, comprehensive undertaking. This is particularly true of our patriotic funds, of which there are many deserving of continued support. From time to time special appeals are made in aid of the War Chest Fund, the Red Cross Society, the Young Men's Christian Association Fund, and many other excellent organizations. While we cannot help entertaining the opinion that it would be more conducive to economy and thoroughness if all these voluntary bodies were amalgamated into one great patriotic fund for Australia, we have to recognize that dissociated schemes existing to-day work very well indeed, and that adverse criticism on the score of extravagance or inefficiency would be quite out of place. Nearly two years ago a fund was started in Sydney for the purpose of providing comforts for the officers and men of the Australian Army Medical Corps. A depôt was opened, and many energetic ladies threw their hearts and souls into the work of collecting and dispatching clothing, food and comforts to their voluntarily elected changelings. In South Australia a similar organization undertook the same tasks, and these two bodies have divided between them the duty of caring for the whole of the Australian Army Medical Corps. For some time the Sydney organization, headed by Lady Anderson Stuart, and assisted by Lady Maitland and Mesdames E. S. Stokes, R. R. MacKinnon and G. Lane Mullins as Vice-Presidents, by Mrs. Spiers Kirkland as Organizing Secretary, by Miss F. M. Kendall as Secretary, and by Miss Amphlett as Treasurer, directed the attention of the Fund more particularly to the units recruited in New South Wales. As time progressed it was found that it was

impossible to earmark the comforts for the men of one State, and since the only other similar institution was that of South Australia, referred to above, the endeavour to limit the benefits was allowed to lapse. Since August, 1915, no less than 1,127 cases, containing clothing, food, smoking materials and other good things, have been forwarded to the various Australian Army Medical Corps units at the several fronts. Every man in the Australian Army Medical Corps received at Xmas last year a box containing a tin of tobacco, a pipe, a tin of sweets, a tin of devilled ham, a handkerchief, nuts and a post card, and in a separate parcel a plum pudding weighing one pound. The cost of each man's gift was 4s. 11d. The units under the regular care of this fund include seven field ambulances, two casualty clearing stations, four Australian general hospitals, three light horse field ambulances and one camel corps field ambulance, in addition to the Australian Army Medical Corps details attached to 22 battalions, to four field artillery brigades, to four light horse regiments, to four pioneer battalions, to the sanitary section of the Divisional Headquarters, and to the details attached to the mining corps, the field company engineers, a divisional train and a divisional ammunition column.

We could write a long story, full of interesting details, of the activity of this splendid organization, but realize that the work is already well known and that little recommendation is needed to enlist the sympathies of the members of the medical profession. The medical profession has a sort of proprietary right in the Army Medical Corps, and the self-sacrificing bravery and utter disregard of danger of the stretcher-bearers has been urged upon our readers too many times to need repetition.

The provision of comforts to the Australian Army Medical Corps officers and men is not a State matter; it is a duty which every Australian should seek to perform. Medical men have no leisure to assist in the actual work of getting the things ready for sending abroad, but they have means which will enable the energetic ladies of the Depôt to carry out the work. We have therefore undertaken with the utmost pleasure to seek monetary assistance from the doctors of all the States, and propose to publish

in subsequent issues the result of our appeal. The Xmas gifts must be ready before the end of July, and we express the hope that contributions will be generous and numerous, in order that each man in the Australian Army Medical Corps may receive a stomach full of cheer. In addition, the ladies are now engaged in preparing winter clothing for the men for the cold weather which will return before peace is reached. Last year each man received a sweater, warm underpants, shirts, socks, muffler "balacclavas," gloves and mittens, and woollen "balacclavas." They will want the same in October this year. Send your cheques to the Editor, and make them payable to the Army Medical Corps Comforts Fund.

THE CONTROL OF VENEREAL DISEASES.

The Federal Committee of the British Medical Association in Australia, at its recent meeting, dealt with certain matters in connexion with venereal diseases. The resolutions of this body cover a wide field, and embrace many separate problems. The greater part of the attention of the Committee was taken up with a consideration of the recommendations contained in the report on venereal diseases of the Committee appointed by the Department of Trade and Customs to enquire into the causes of death and invalidity in the Commonwealth. It will be noted from the account which was published in our issue of last week that the decision of the Federal Committee was in favour of a universal application throughout the Commonwealth of legislation similar to that now in force in four States. In addition, the Committee would wish to free the practitioner from the bond of secrecy when confronted with the knowledge of a pending marriage between two persons, one of whom is under treatment for a venereal infection. In regard to the application of reputed preventive measures against infection, the Committee has referred the subject for consideration and report to the various Branches of the British Medical Association. In the last place the Committee has established the principle that clinics at which patients suffering from these diseases can obtain treatment, should be associated

with the public general hospitals, and that the ordinary rules of hospital treatment should apply. The Federal Committee has recorded these decisions after each Branch has had an opportunity of investigating the problems concerned, and after each representative had received instructions to guide him in his action as a member of the Federal Committee.

We have devoted a very large amount of space of this Journal to the four Acts now in existence in Queensland, Western Australia, Victoria and Tasmania, because the subject is one of immense importance and the legislation in question is a bold experiment. By publishing a full resumé of the debates in the legislative chambers when the Western Australian and Victorian Bills were being considered, we have given prominence to the manifold aspects of the underlying principles and of the details as they occurred to parliamentarians accustomed to analyse and check proposed legislative measures. We have published the text of each of the Acts, and have also commented on the subject on many occasions. Notwithstanding all this, there is much that can still be said in regard to the Acts and much that must yet be learned of their ultimate utility. In the main, the super-modern legislation was first introduced in Queensland in 1911, when an amending Act imposed upon medical practitioners the duty of notifying all cases of venereal diseases without disclosing the identity of the patients, required every person suffering in this way to submit to treatment, and rendered it a criminal offence knowingly to infect others. While the details and the machinery for carrying out these fundamental provisions vary to some extent in the more recent enactments, the principles themselves have been preserved without modification. The ultimate success of the endeavour to cope with this widespread evil must therefore depend on the soundness of these fundamental principles and since we have some information concerning the manner in which the Queensland Act has worked since its introduction in 1911, it is no longer necessary to grope in the dark.

It will be noted that the Acts utilize anonymous notification as a means of checking the spread of

infection. Notification hitherto has been used for the purpose of enabling the health authority to control the source of infection and to cut it off. We fear that this is too often neglected in the case of infections such as diphtheria, scarlatina and enteric fever. Notification under ordinary conditions has no other object. The health authority is supposed to take nothing for granted. He is expected to assure himself of the correctness of the diagnosis, to make investigations in each case as to the source of infection, to apply such measures as are practicable to prevent the infection from being conveyed to other persons both from the patient and from the individual who originally infected him, to destroy all foci of infection, if any are discovered in inanimate objects, and to search for evidence of latent infecting micro-organisms in apparently healthy persons. When the health authority fails to carry out these duties efficiently in every case of infective disease notified, public money is being wasted and the public is being defrauded into a sense of false security with which it has a right to console itself. The problem is entirely different when the notification is anonymous. The usual means of stemming the spread of infection are cut off, because the health authority is not in possession of the necessary information. Anonymous notification necessitates a totally different plan of campaign. It is supposed that the notification acts as a lever to enforce compulsory treatment. By subjecting every person suffering from the diseases under consideration to treatment, it is assumed that the period of infectivity will be shortened, and that during the course of treatment the medical attendant will have some controlling influence over the actions of his patients. To support this effort to limit the spread, the person who infects a healthy individual is held to be responsible in law and is liable to imprisonment.

The value of the Acts must therefore depend primarily on whether the notification reveals a reasonably large proportion of the cases, and whether the treatment employed carries with it sufficient guarantee of cure to justify the compulsion. The number of cases notified in Queensland during the three years ending June 30, 1916, gives

some information on which a reply to the first question may be based. It is obvious that the extent of venereal infections among the men in military camps can be ascertained by notification. The Commissioner apparently regards the figures given in the 12 months ending June 30, 1914, as normal for the State. There were 122 cases of primary syphilis and 109 cases of secondary syphilis, as well as 859 cases of gonorrhœa. In the twelve months ending June 30, 1916, only 841 cases of venereal diseases were notified outside the military camps. It is quite obvious that these figures do not reflect the extent of these diseases among a population of over 687,000 persons. In Brisbane the legal powers possessed by the Health Department to enforce the examination of prostitutes is utilized to some extent for the purpose of ascertaining the extent of venereal disease among this class of person. From the Commissioner of Health of Western Australia we learn that notification failed in the first 16 months during which the Act has been in force as far as females are concerned. It may be that females do not obey the law, and refrain from seeking medical advice when infected. The same may apply to a considerable number of males. But are we assured that the fault does not lie to some extent with medical practitioners? The temptation not to notify in the case of an influential citizen may be great, since the patient would endeavour to persuade the doctor to run the risk of detection, and possibly undertake to reimburse him, should a fine be inflicted. The fact remains that neither in Queensland nor in Western Australia have medical practitioners notified anything approaching all the cases of venereal diseases which must have occurred. If this is due to wilful defiance of the law on the part of doctors, the prospects of any appreciate good accruing from the Acts are distinctly bad. We would urge on medical practitioners that the desire to assist in the endeavour to check the spread of these disastrous diseases should suffice to impel them to notify every case, and not to be influenced by personal appeals from patients who do not deserve any pity. If the medical profession would but make a great effort to assist the health authority

in this campaign, it may be that in the course of time, the notification may become almost complete.

The second matter is still more difficult to gauge. It is an undoubted fact that the treatment employed by a large number of medical practitioners in the case of gonorrhœa and syphilis is unsatisfactory. Syphilis has been cured by arseno-benzol and probably by mercury; witness a second infection after an energetic course of treatment. It is possible that cures have been effected more frequently than can be proved. It is speculative at present to assume from the disappearance of the power of the serum to deviate complement that the infection has been overcome, although we are justified in using this test as an index of probable cure. But experience has shown that the proper, scientific application of the arsenic-mercury treatment, with its bio-physical control, is but rarely carried out in general practice. The treatment of gonorrhœa is, unfortunately, unsatisfactory, even in the hands of those who have devoted much time and attention to the subject. Whether the treatment as applied by the non-specialist is of any avail at all, is an open question. From these considerations, it would appear that the hope of curtailing the period of infectivity by the application of remedies is a frail one. Nevertheless, it is assuredly better that doctors who have knowledge of disease should be required to apply remedies, rather than that the untrained person should be allowed to cheat the public into the belief that he is competent to treat these diseases. The good that anonymous notification is likely to effect will therefore depend more or less on the amount of control that medical practitioners can exercise on their patients in preventing them from passing the infection on to others. It must, nevertheless, be recognized that the medical profession has it in its power to do a great deal, when armed with the power of notification, and when the patient is instructed on the infectious nature of the complaints and the legal consequences of indulging in promiscuous or even legitimate sexual intercourse while in an infectious condition. The provisions for the imprisonment of persons guilty of having infected others may have some deterrent effect. We understand that only two or

three prosecutions have been undertaken in Queensland, and that no case has been dealt with in Western Australia. Moreover, these prosecutions may have the effect of persecuting the prostitute, who, after all, is the least grave source of danger to the community. If some member of a legislative chamber or other person in a prominent public position were proceeded against, the provision might have considerable effect. Our knowledge of human nature teaches us that this eventuality is unlikely to occur.

We are therefore driven to the conclusion that notification without disclosing the name of the infected person is a poor substitute for ordinary notification. It is probably better than none at all, and public opinion may be educated by it, until the more powerful weapon can be employed.

BOVINE INFECTION IN TUBERCULOSIS.

All prophylaxis of disease must be based primarily on a recognition of the source of infection. While it may be possible to eradicate a disease by empirical means, without an exact knowledge of its ætiology, or by attacking a single ætiological factor without directing attention to others, such a practice must be regarded as unscientific and as unlikely to lead to definite results. In the case of tuberculosis, the introduction of improved sanitation and the better housing conditions of the working classes have effected a considerable reduction in the mortality from this disease, but it has been obvious to hygienists and pathologists for many years that ultimate success must depend on accurate knowledge concerning the mode of infection. The work of Villemin and Gerlach in demonstrating the infective nature of the affection, and the discovery by Koch of the tubercle bacilli marked the foundation of a sound prophylaxis. Up to 1901 it was generally held that human and bovine tuberculosis were identical processes, the differences being merely those of adaptation to a host. Koch's astounding statement that since all attempts to infect calves with bacilli of human origin had failed, infection of human beings by bovine bacilli was probably of very rare occurrence, and consequently there was no need to take measures to prevent this form of infection, came as a thunder clap out of a clear sky. Subsequent events have shown that this dictum does not correspond with fact, although the extent of bovine infection in man has not been determined with marked accuracy. The Royal Commission on Tuberculosis in Great Britain established the fact that it was possible to infect calves with human bacilli and that human beings suffered from tuberculosis caused by bacilli of bovine origin. In 1913, Rabinowitsch showed

that 11.6% of the bacilli isolated from various tubercular lesions in human beings were of the bovine type. She was also able to demonstrate that in children 29% of the infections were of this type. Fraser and Mitchell have demonstrated that the children in Edinburgh were very frequently infected with bovine bacilli. A considerable amount of information has gradually been collected on this subject during recent years. The work of Dr. Chung Yik Wang¹ in Edinburgh has contributed some important data to this study. He found that in children under 16 years of age dead of tuberculosis at the Royal Hospital for Sick Children, the infecting bacilli had a bovine origin in 55%. Analysis of the available data disclosed the fact that of the infecting bacilli which had given rise to a fatal tuberculosis in children under the age of 5 years in Edinburgh, no less than 78.4% were of bovine origin, and that the bovine bacillus was responsible for 70.3% of the deaths from tuberculosis of children under 16 years of age. In other British cities the frequency of bovine infection is much less. This author points out that the most common forms of tuberculosis in early infancy are tubercular meningitis and abdominal tuberculosis. He has tested a large series of children by the von Pirquet test, and has recorded the results in the light of the method of feeding. Of 106 children fed on cow's milk, 80 received the milk unboiled and 26 received it after it had been boiled. Of the former 37.5% gave a positive von Pirquet reaction, while of the latter 15.4% gave this reaction. He points out that abdominal tuberculosis occurs with great frequency in Edinburgh and Glasgow, where the cow's milk is notoriously given unboiled, and is frequently tainted with tubercle bacilli. In Vienna, where raw milk is but rarely given to children, abdominal tuberculosis is relative a very rare condition. London and Manchester, which occupy a midway position in regard to the frequency of tubercle bacilli in milk and also in regard to the boiling of milk destined for consumption by infants, abdominal tuberculosis is neither rare, nor common. This evidence demonstrates conclusively that there is grave danger from infected cow's milk when given to children. With the two obvious remedies, we need not deal at present, beyond making the bald statement that it is safer and more rational to exclude the tuberculous cow from dairy herds than to depend on sterilization by heat.

While the story of the Edinburgh children shows that Koch was incorrect in his deduction, the same author has another to tell,² which teaches us that pulmonary tuberculosis is almost without exception caused by bacilli of the human type. He has conducted some careful investigations dealing with the bacilli contained in the sputum of persons suffering from pulmonary tuberculosis. He has adopted the rabbit test for the purpose of distinguishing the bovine from the human type of bacilli. He isolated 29 strains of bacilli, and of

these 28 were shown to be human in origin. Rabinowitsch examined 41 strains derived from sputum, and found that in no case was there a bovine type of bacillus. Dr. Wang has collected records of 998 sputum examinations, and of these there were but four in which the bacilli were of bovine origin, while three others contained bacilli of both bovine and human origin. From these records it would appear that the infection in pulmonary tuberculosis has its origin in bovine tuberculosis in considerably less than 1%. It is possible, and even probable, that when a large number of cases have been investigated, it may be found that the bovine type is still less common.

Naval and Military.

It is with great regret that we have to report the death, as a result of wounds, of Captain N. E. Shierlaw. We have also the painful duty of recording the announcement that Captain R. B. Lucas, who was reported missing eight or ten months ago, is now said to have died from wounds while a prisoner in Germany.

The 298th list of casualties was issued on May 17, 1917, and contained the name of Captain P. E. Voss under the heading of "wounded." The 299th and the 300th lists were issued on May 18. In this list we find the name of Captain C. B. Burden among the injured. It is with great regret that we read the name of this brave officer under the heading "died of injuries" in the 301st list of casualties, which was issued on May 21, 1917. The total number of casualties in these four lists numbered no less than 3,719, of which 86 affected commissioned officers.

Information has been received in Sydney to the effect that Lieutenant R. P. Magnus, a medical student of the University of Sydney, and son of Dr. E. Randolph Magnus, has been seriously wounded in France.

THE BRITISH RED CROSS MONTH.

In our issue of May 5, 1917, we appealed on behalf of the Victorian Division of the British Red Cross Society for contributions to a fund inaugurated by Her Excellency, Lady Stanley. The following subscriptions from medical men have been received up to May 18, 1917:—

	£	s.	d.
Dr. and Mrs. G. A. Syme	100	0	0
Dr. and Mrs. W. E. Drake	10	10	0
Dr. J. F. Mackeddle	10	10	0
Dr. and Mrs. A. J. W. Pettigrew	10	10	0
Dr. S. V. Sewell	10	10	0
Dr. H. D. Downing	5	5	0
Dr. T. W. Sinclair	5	5	0
Professor R. J. A. Berry	3	3	0
Dr. D. Murdoch	3	3	0

THE TASMANIAN HOSPITAL DIFFICULTY.

The Board of Management of the Hobart General Hospital have attempted to overcome the difficulties created by the resignation of the members of the Honorary Staff and of the Resident Medical Officer. We are informed that the Board has appointed Dr. Victor Richard Ratten, a graduate of Harvard College, Chicago (1907), as Surgeon-Superintendent, Dr. E. T. Macgowan as Visiting Surgeon and Dr. E. L. Crowther as Anæsthetist. The two latter are members of the Tasmanian Branch of the British Medical Association. Dr. Macgowan is a Melbourne graduate, who took his degree in 1895, and Dr. Crowther is an Aberdeen graduate, who qualified in 1866 and 1867.

Dr. E. J. Wayne, who has been serving with the Australian Imperial Forces, has returned from the front and has resumed his practice at Woodside, South Australia.

¹ *Edinburgh Medical Journal*, March, 1917.

² *The Journal of Pathology and Bacteriology*, Vol. XXI., No. 1, December, 1916.

Abstracts from Current Medical Literature.

OPHTHALMOLOGY.

(153) Perceptions of Movement in Occipital Injuries.

George Riddoch reports a series of cases of occipital injury which shows a differentiation of the field of vision for movement, as compared with the field for form (*Proc. Roy. Soc. Med.*, 1917, Vol. X, No. 3). Both fields were charted, and the conclusions arrived at were: (1) that movement should be recognized as a definite visual perception; (2) that it may be dissociated from vision of stationary objects; and (3) that as vision returns perception of movement recovers before the object can be seen. Case I. was a typical example. The patient was hit by a bullet in the right occipital region, and eleven days later was trephined and the bullet removed. He had complete left hemianopsia up to the fixation point for stationary objects, but a full field for movement. Case VII. was in a patient who was wounded in the occipital region by a piece of shrapnel casing, and was later trephined. Vision was lost in both lower quadrants. Vision returned in the left lower quadrant, beginning in the periphery, and at first for light and movement only.

(154) The Arrest of Myopia.

Sidler-Huguenin found that in 150 cases of well marked anisometropia the worst eye was not used, and yet it gradually became more and more myopic and subject to degenerative changes such as crescents, diseases of the macula, retinal hemorrhages and opacities of the vitreous (*Archives of Ophthalmology*, November, 1916). These observations showed that the use of the eye had nothing to do with the degree of the complications of a near-sighted eye. The myopia developed to the degree of the accompanying fundus changes determined upon at the time of conception. Changes in the fundus are likely to occur in lower degrees of myopia, similar to those in the higher degrees. Maculae of the cornea are prognostically unfavourable. Steiger, from experience with school children, did not regard corneal opacities as the cause for myopia; but against this it is known that interstitial keratitis and zonular cataract are frequently followed by myopia. Heredity must be considered the most frequent cause, and the condition regarded as a degenerative process. Removal of the lens has proved a failure, as the degeneration and retinal changes go on. It was observed that the non-operated eyes, which had to do practically all the near work, did not advance as much as the eyes of a series of 50 cases where neither lens had been removed. It seemed as though the use of the

myopic eye was more favourable than the non-use. Careful observation showed that eyes with under-correction were just as likely to remain stationary as those wearing full correction glasses. It is not necessary to be too strict in the choice of a profession, as the amount of work does not seem to affect the issue. The increase of myopia and its deleterious consequences cannot be prevented by the methods which are now at our command. The evils can only be influenced by the proper selection of individuals for marriage. Glasses should be ordered to suit the comfort of the patient.

(155) Multiple Aneurysms of the Retinal Arteries.

J. A. Pringle presents a picture and description of a peculiar fundus condition (*British Journ. Ophthalmol.*, February, 1917). The left superior temporal artery divides into two branches. The upper one, with the vein, is enveloped at some distance from the disc in a long patch of medullated nerve fibres. Along the lower branch just above and beyond the macula may be seen three oval swellings of pinkish appearance, separated by small intervals of normal vessel. Besides these are more numerous and much smaller bodies greyish-pearl in colour. In the right fundus 23 of these dilations can be seen upon the inferior temporal and inferior nasal arteries, but they are smaller than those in the left eye and more peripheral. The vision in each eye is $\frac{1}{60}$. The author considers that the enlargements are aneurysms of congenital origin.

(156) Bilateral Glioma of the Retina.

The case reported by F. E. Taylor and Norman Fleming was that of a girl, aged three years, who was admitted with a fungating growth of the left eye and an obvious glioma within the right eye (*British Journ. Ophthalmol.*, February, 1917). Exenteration was performed on the left side and enucleation on the right. The right optic nerve was found to be involved and surrounded by the growth. Recurrence took place in both orbits, and, in spite of several further operations the child died about three months after admission. Examination after death revealed the presence of tumours in the dura mater, chiasma, right ovary and second lumbar vertebra. Examination of 497 cases collected by Wintersteiner reveals that recurrence takes place much more often in adjacent parts than in distant organs and structures, the number being 181 and 22 respectively. The skeletal bones are often affected.

(157) Quinine Amaurosis.

Arthur J. Ballantyne reports a case of quinine amaurosis with some unusual features (*British Journ. Ophthalmol.*, March, 1917). A girl, 22 years of age, took about two teaspoonfuls of powdered sulphate of quinine for toothache. In a few hours she felt stupid, with noises in her ears, deaf-

ness and blindness. She was admitted to hospital four days later, quite blind, with pupils widely dilated and immobile. The fundi were practically normal. Nine days after taking the quinine, for the first time the discs were found to be pale and the vessels narrow. A day later the vision began to return, and steadily improved, with gradual expansion of the field; but at the same time there was increasing pallor of the discs and narrowing of the vessels. At the end of a month she was discharged with $\frac{1}{60}$ vision in each eye and markedly contracted fields. The late appearance of the characteristic ischaemia of the discs and vessels is not unique, but very exceptional; in the vast majority of cases published the pallor was present at the first examination. It is obvious that the presence of ischaemia is not essential for amaurosis, and there is no parallelism between the ischaemic phenomena and the state of vision. Experiments in dogs showed an early degeneration of the ganglion cells of the retina, followed by ascending atrophy of the nerve fibres. The better recovery of the central vision, as compared with the peripheral, may be explained by a more profound loss of function of the less vascular periphery or by a selective action of quinine on the rods.

(158) Transitory Traumatic Opacity of the Lens.

D. V. Gird describes a case of transitory traumatic opacity of the lens in a boy, aged 13 years (*Ophthalmoscope*, December, 1916). The boy was injured in the left eye by a stone. On examination it was found that there was a small irido-dialysis nasally, a central circular, superficial haze in the lens, 4 mm. in diameter. The vision was reduced to $\frac{1}{60}$. Five days later the central haze in the lens was reduced to a ring opacity, and in a fortnight the lens was quite clear. Changes in the macula prevented any great improvement in vision. Fuchs has called attention to another form of transitory opacity of the lens described by Vossius. He points out that it occurs after contusion of the eye, and consists in a delicate grey ring immediately under the anterior capsule, which corresponds in size and position to the pupillary border. The opacity disappears in one or two weeks. He suggests that it may be produced by the rebounding aqueous humour pressing the pupillary border against the anterior capsule of the lens. In the case described the opacity was first in the form of a disc. This was probably the result of greater severity of the contusion.

(159) Double Cataract Following Electric Shock.

D. Leighton Davies relates the case of a man of 32 years, who came in contact with a live wire and received a current of about 11,500 volts into his body (*Ophthalmoscope*, December, 1916). He was much burned about the head, and it is probable that this part received the current. Eighteen months

later his vision failed, and his lenses were found to be cataractous. The opacities, as is usual in electric cataracts, were in the form of dots scattered through the lens, but were not confined to the region of the anterior capsule, as they are said to be in some cases. The cataracts were successfully removed.

LARYNGOLOGY AND OTOTOLOGY.

(160) Sphenoid Sinus Operations.

Aeration and drainage are the objects aimed at in attacking diseased conditions of the sphenoid sinus, and the methods, conservative and radical, employed to attain these results are discussed by R. H. Skillern (*Journ. of Laryng., Rhin. and Otology*, February, 1917). Hajek's method, in which the posterior half of the middle turbinate is removed with scissors and snare, the posterior ethmoidal cells and superior turbinate broken down with a hook and removed piecemeal, and the anterior sphenoidal wall entirely extirpated with specially designed bone forceps, is the radical procedure most in favour. Modifications are introduced, governed by the extent of the disease, and in many cases conditions suitable for healing can be secured merely by enlarging the ostium without sacrificing the other structures, provided the anatomical configuration of the endonasal structures permit (conservative method). By infracting the middle turbinate against the lateral nasal wall, sufficient room is often given for this procedure. Killian and Mosher preserve the middle turbinate and gain access to the anterior sphenoidal wall through the anterior and posterior ethmoidal cells. For opening the sinus, Schaffer, Killian, Hinkel, Mosher, Coakley, and Curtis prefer the curette; the sharp hook is favoured by Hajek, Tilley, Onodi, Logan Turner, and Boeninghaus; the curved knife by Andrews. The electric trephine is used by Ingals, Spiess, Stake, Stoekel and Halle; the chisel by Zarniko and Gmeinder; Luc and Faraci employ forceps; and Grayson a hand-burr. The author considers the Faraci forceps—a long, slender tool with lance-shaped end—the ideal instrument for biting out the anterior sphenoidal wall, it being used in conjunction with Killian's long speculum and a probe for orientation. Dangers incidental to operations on this sinus include (1) hæmorrhage, from the sphenoidal branch of the naso-palatine artery traversing the sinus floor, and the cavernous sinuses laterally, (2) *rhinorrhoea cerebro-spinalis*, (3) cerebral irritation, from pressure during irrigation or from packing, and (4) injury to the sheath of the optic nerve through a dehiscence in the sinus roof, resulting in blindness or meningitis. The application of antiseptics, especially silver nitrate, to the mucosa may cause great swelling, but it generally settles down in a few days. Tampons cause a similar reaction. Local anæsthesia is recommended for all cases, except in children and very nervous subjects.

(161) Congenital Syphilis of the Ear.

The generally accepted view as to the pathology of congenital syphilitic deafness is that it is due to a syphilitic neurolabyrinthitis, although some attribute the condition to vascular changes. J. S. Fraser and Richard Muir (*Journ. Laryng., Rhin. and Otology*, January, 1917) are inclined to the opinion that at least in some cases congenital syphilitic deafness is due to syphilitic otitis media, possibly with mixed infection, which (1) invades the marrow spaces of the petrous bone and also attacks the labyrinth capsule, giving rise to a chronic form of osteomyelitis, which slowly invades the perilymph spaces of the labyrinth (gradual onset of deafness), or (2) rapidly invades the hollow spaces of the inner ear through the oval or round windows, and causes syphilitic parotitis (apoptiform onset of deafness). In support of their view they enumerate the findings in a case of undoubted congenital syphilitic disease, exhibiting the signs and symptoms of the late form of congenital syphilitic deafness. These shortly are: (1) A chronic adhesive process in the tympanic cavity. (2) Ankylosis of malleus. (3) Necrosis and exfoliation of bone from the posterior superior wall of the external meatus. (4) Invasion of the labyrinth capsule from the deep layer of the sub-mucosa of the middle ear. (5) Marked changes in the marrow surrounding the labyrinth capsule, of the nature of chronic osteomyelitis, spreading also from the deep layer of the sub-mucosa of the middle ear. (6) Erosion of the bony labyrinth capsule by the phagocytic marrow. (7) A filling up the perilymph space of canals by granulation tissue. (8) Obstruction of the endolymphatic duct. (9) Great dilatation of the membranous labyrinth. (10) Formation of new connective tissue in the *scala tympani*. (11) Secondary degenerative neuritis of the nerve structures of the membranous labyrinth. (12) Slight small-celled infiltration within the arachnoid sheath at the fundus of the auditory internal meatus (meningitis). The labyrinth vessels showed no syphilitic changes. The authors quote Alexander's statement to the effect that cases of otitis media occurring in young children, who suffer from congenital syphilis, develop into conditions which clinically correspond to oto-sclerosis. They consider it probable that in congenital syphilis there is a special vulnerability of the labyrinth capsule, a lack of resistance to the inward spread of inflammatory processes.

(162) Eustachian Tube Obstruction.

From a careful study of ninety cases of Eustachian obstruction C. E. Ide has made the following observations (*Laryngoscope*, January, 1917): The condition may be temporary or permanent, may occur at the Eustachian fossa, at the mouth or in the course of the tube, or at the isthmus. It may be a sequel of vasomotor paresis, ulceration, chronic infection or irritation. It

is relieved at the fossa by curettage; at the mouth by incision with the salpingotome and dilatation by bougies, and in the course of the tube and at the isthmus by electrolysis and the use of bougies. Over 50% of the cases are associated with diseased teeth or tonsils, and 15% are due to adenoids. This argues for a lowering of resistance in the Eustachian tube by constant infection or irritation from those neighbouring organs. Nasal obstruction is not so much a cause as was formerly thought. The vault of the pharynx is one of the main sources of focal infection. Treatment calls for the use of the Eustachian catheter, the applicator and bougies, and of vaccines, as a routine, with the frequent addition of curettage of the fossa and electrolysis of the tube when ordinary treatment fails to relieve. Cases of frequent exacerbation of closure of the tube need treatment by electrolysis. The writer's rule is that in any case where the isthmus of the tube will not admit the No. 2 Yankauer Eustachian bougie electrolysis should be used. He considers the use of the catheter justified. In cases of collapse of mouth of tube, incision with salpingotome, curettage of fossa, and the frequent passage of bougies, is recommended. The collapse he holds, is often due to Politzerization. The prognosis for the restoration of hearing should never be made before the Eustachian tubes have been rendered patent.

(163) Aural Symptoms of Cerebello-Pontile Angle Tumours.

Wells P. Eagleton (*Journ. Amer. Med. Assoc.*, February 3, 1917) sets out the aural manifestations of cerebello-pontile angle tumours as follows:—There is, (1) progressive deafness, at first slight and with a distressing tinnitus, beginning with a reduction of the deviation of the bone conduction of the affected side; the vibrations of the tuning fork in Weber's test are referred to the unaffected side; Rinne's test is positive on the affected side; and there is frequently greater alteration of the tuning fork reactions than is accounted for by the amount of the loss of hearing. (2) Total deafness ensues, associated with (3) loss of vestibular reactivity of the affected side; and, during the time that the vestibular apparatus is still functioning, (4) a gradual readjustment of the vestibular apparatus of the contralateral, as well as the homolateral side is going on which is manifested by (a) a reduction or even a temporary abolition of its reactivity to the cold caloric reaction (at least when applied in the upright position); (b) an absence of the vertigo and vomiting which normally accompany induced nystagmus from the cold caloric reaction; and (c) absence of spontaneous pointing deviations. As the cerebellar cortex becomes affected, however, may be added; (5) spontaneous nystagmus; (6) spontaneous pointing deviations; and (7) absence during an induced nystagmus of the normal pointing deviations of the homolateral side.

British Medical Association News.

MEDICO-POLITICAL.

A meeting of the Western Australian Branch was held at the Perth Public Hospital on April 18, 1917, Dr. J. K. Couch, the President, in the chair.

A communication from the Secretary of the New South Wales Branch dealing with the proposals to enforce equality of obligation to serve with the Australian Army Medical Corps was read. (The text of the proposals was published in *The Medical Journal of Australia* of May 19, 1917, p. 429.)

Dr. W. Trethowan stated that the Council of the Western Australian Branch had been unanimously in favour of adopting the resolutions put forward in the letter from the New South Wales Branch, and moved that the proposals, marked (a) and (b) in the document be endorsed by the meeting on behalf of the members of the Western Australian Branch. He pointed out that a copy of the proposals had been sent to every member of the Branch, and that no replies had been received objecting to the proposals. The motion was seconded by Dr. L. E. S. Gellé.

Dr. D. D. Paton asked whether the motion referred to the Australian Imperial Force, or was to be restricted to the Australian Army Medical Corps. He pointed out that the same question had arisen at the meeting of the New South Wales Branch, when these proposals had been considered. It was decided that the resolution of the New South Wales Branch referred only to the Australian Army Medical Corps.

Dr. D. P. Clement said that he saw no reason why the Western Australian Branch should not take the initiative and extend the proposals to include the Australian Imperial Force, as well as the Australian Army Medical Corps.

Dr. W. Trethowan moved as an amendment that the words:—"for service in Australia or abroad" be added to paragraph (a) in such a manner that it would read as follows:—

That steps be taken to introduce compulsory enrolment of all medical practitioners registered as legally qualified medical practitioners or entitled to be so registered in any State, as persons liable for enlistment and service as officers in the Australian Army Medical Corps, for service in Australia or abroad.

The amendment was seconded by Dr. L. E. S. Gellé, and was carried unanimously. The Secretary was instructed to notify the representatives of the Branch on the Federal Committee.

Dr. M. K. Moss gave notice of motion to be dealt with at the next meeting of the Branch, dealing with the class of patients admitted to the King Edward Hospital for Women.

The following have been elected members of the New South Wales Branch:—

Harriette M. Exton, M.B., Ch.M., 1915 (Univ. Sydney), Royal Alexandra Hospital for Children, Camperdown, N.S.W.

Elise Pascoe, M.B., 1913 (Univ. Sydney), Hospital for Insane, Callan Park, N.S.W.

W. T. J. Harris, M.B., 1916 (Univ. Sydney), Pambula, N.S.W.

Donovan S. Foy, M.B., Ch.M., 1916 (Univ. Sydney), Mater Misericordiae Hospital, North Sydney, N.S.W.

Harvey Nickoll, L.R.C.P., Edin., 1883, L.R.C.S., Edin., 1883, of Mudgee, N.S.W., has been nominated for re-election as a member of the New South Wales Branch.

Medical Societies.

NORTHERN SUBURBS MEDICAL ASSOCIATION.

(Affiliated with the British Medical Association.)

The annual meeting of the Northern Suburbs Medical Association was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on April 21, 1917, Dr. H. Z. Throsby, the President, in the chair.

The annual report of the Committee for the year ending March 31, 1917, was submitted to the meeting and adopted.

The financial statement was also received and adopted.

The following office-bearers and members of the Committee were elected for the ensuing year:—

President: Dr. T. L. Pawlett.

Vice-President: Dr. Andrew Davidson.

Honorary Secretary: E. A. R. Bligh.

Honorary Treasurer: E. M. Humphrey.

Members of Committee: Dr. H. Z. Throsby, Dr. F. Guy Griffiths, Dr. J. L. T. Isbister, Dr. F. S. Tange, Dr. Clarence Read, Dr. F. M. Blackwood, Dr. W. G. C. Smith, Dr. David Thomas, Dr. H. S. Capper, Dr. A. S. Vallack, and Dr. F. W. Doak.

Dr. E. A. R. Bligh was elected the delegate of the Association at the Annual Meeting of delegates of the New South Wales Branch. Dr. Bligh was also elected representative to attend the quarterly meetings of the Council. Dr. F. S. Tange was elected representative of the Northern Suburbs Medical Association on the General Committee of the Sydney and Suburban Provident Medical Association. Dr. H. F. J. Norrie was elected Honorary Auditor.

Dr. H. Z. Throsby delivered his presidential address before vacating the chair. He reviewed the work of the Northern Suburbs Medical Association during his term of office, and commented on the small number of discussions dealing with scientific subjects. He suggested that a committee should be appointed to make arrangements for scientific discussions.

Dr. Clarence Read moved, and Dr. E. A. R. Bligh seconded, a vote of thanks to the retiring President. It was carried by acclamation.

It was resolved:—

That a committee of three be appointed to arrange for the discussion of scientific subjects and the reading of papers at general meetings, and that the first committee consist of Drs. Guy Griffiths, F. W. Doak and H. Z. Throsby.

Dr. E. A. R. Bligh presented a motion for the institution of a federal fund to compensate medical practitioners who have suffered financial loss as a result of incapacity arising from service with the Australian Imperial Force. The motion was seconded by Dr. David Thomas. After a considerable discussion, the various clauses were amended and a resolution passed in the following form:—

(1) That a federal fund be established for the relief of medical practitioners who have been partially or wholly incapacitated, and for the dependents of those who have been killed as a direct or indirect result of military or naval service at home or abroad.

(2) That the fund be called the Federal Naval and Military Medical Relief Fund.

(3) That every medical practitioner be invited to pay a sum of not less than £2 2s. 0d. per annum, such payment to be retrospective to August 4, 1914, and to continue for a period of not less than one year after peace has been declared, provided that no medical practitioner shall be required to pay such annual contribution during his period of service in the Imperial Forces.

(4) That a federal committee be formed to manage the fund.

(5) That such federal committee consist of eight members:—

(i.) The Director-General of Medical Services.

(ii.) The Director of Naval Medical Services.

(iii.) One member to represent each State, to be elected by ballot.

Such committee to appoint one of their number as an honorary secretary.

(6) That a local committee be formed in each State to consist of three members:—

(i.) One to be the Principal Medical Officer of each State.¹

(ii.) One member to be elected by a ballot of the medical practitioners in each State.

(iii.) One member to be elected by the Branch of the British Medical Association.

(7) That all claims be submitted in the first place to the local committee, so that the necessary enquiries may be made and report to the federal committee, so that the federal committee can consider the recommendation and assess the relief, if any, to be granted.

¹ The word "State" is used, but it is obvious that Military District is meant.

It was resolved that a copy of the resolution be forwarded to each affiliated local association throughout the State, and to the Council, with a recommendation that if the Council thought it advisable the Federal Committee be invited to consider the proposal.

THE PATHOLOGICAL CLUB OF SYDNEY.

The annual meeting of the Pathological Club of Sydney was held at the Micro-biological Laboratory in the Department of Public Health, New South Wales, on May 16, 1917. There were eight members present.

The balance sheet for the year 1916 was submitted and approved. It was resolved that the subscription for the year 1917 should be 10s. 6d.

The following were elected office-bearers and member of the committee:—

President: Dr. E. C. Corlette.

Honorary Secretary and Treasurer: Dr. Burton Bradley.

Third Member of the Committee: Dr. J. B. Cleland.

Dr. P. E. Walton Smith and Dr. Emma Buckley were elected members of the Club.

Dr. Burton Bradley read the notes of a case of anæmia in an infant. A discussion followed.

Dr. S. J. Johnston and Dr. J. B. Cleland submitted specimens.

The annual meeting of the Royal Society of New South Wales was held on May 2, 1917. The following were elected office-bearers and members of the committee for the ensuing year:—

President: Dr. J. B. Cleland.

Vice-Presidents: Mr. H. G. Smith, F.C.S., Mr. Charles Hedley, F.L.S., Dr. R. Grieg-Smith, Mr. T. H. Houghton, M. Inst. C.E.

Honorary Treasurer: Dr. H. G. Chapman.

Honorary Secretaries: Mr. R. H. Cambage, F.L.S., Mr. J. H. Maiden, F.R.S.

Members of Council: Dr. C. Anderson, Mr. E. C. Andrews, F.G.S., Mr. D. Carment, F.I.A., F.F.A., Mr. W. S. Dun, Professor C. E. Fawsitt, D.Sc., Ph.D., Mr. J. Nangle, F.R.A.S., Dr. F. H. Quaife, Mr. C. A. Süßmilch, F.G.S., Mr. H. D. Walsh, M. Inst. C.E., and Professor W. H. Warren, LL.D.

VENEREAL DISEASES.

We have received a copy of the Regulations issued in accordance with the provisions of the "Venereal Diseases Act, 1916," of Victoria. We understand that these Regulations have been laid before the members of the two Legislative Chambers, and that on their gazettal the date when they will come into operation will be fixed. The following Regulation deals with drugs which may be sold by a pharmacist only when prescribed by a medical practitioner:—

2. No pharmaceutical chemist shall sell or supply any of the drugs or medicines described in the list following except on the prescription of a medical practitioner nor unless such prescription is dated and bears the address and usual signature (including the surname) of such practitioner:—

- (a) any patent or proprietary medicine which is specifically recommended for the cure, alleviation or treatment of any venereal disease or diseases.
- (b) Kharsivan or any similar synthetic organic arsenic compound.
- (c) Argyrol or any similar synthetic organic silver compound.
- (d) Grey oil or any similar mercurial emulsion specifically prepared for the cure, alleviation or treatment of any venereal disease or diseases.
- (e) Hydrargyrum cum creta (or its admixtures), biniodide of mercury, tannate of mercury and cyanide of mercury in pill or tablet form.
- (f) Sandal-wood oil or its derivatives, copaiba or its derivatives, in the form of emulsions or capsules.
- (g) Methylene Blue in the form of pills, tablets or capsules.
- (h) Any medicated bougie,

- (i) Gonococcus vaccines and serums and gonorrhœal phylacogen.

The regulations dealing with the prescribed periods of attendance, notices, etc., to be given to patients, certificates of cure, certificates of freedom from infection, the apprehension of persons, the period of detention for examination, the fees chargeable for certification and for notification, the returns of medical practitioners of cases, the prevention of infection, and penalties, are as follows:—

3. (1) Every person suffering from venereal disease or suspecting that he is so suffering shall (until he has received a certificate of cure or of being free from venereal disease) personally attend or cause himself to be attended by a medical practitioner or personally attend at a hospital or other prescribed place for the purposes of treatment and advice at such periods as are hereunder prescribed and shall follow the advice given by such medical practitioner or by a medical practitioner at such hospital or place.

(2) (a) In the case of Syphilis the patient shall attend at least once in every two weeks during the continuance of primary or secondary symptoms and thereafter at least once every month.

(b) In the case of Gonorrhœa the patient shall attend at least once in every seven days during the continuance of acute symptoms and thereafter at least once every fourteen days.

(c) In the case of Soft Chancres the patient shall attend at least once in every seven days.

4. (1) Every medical practitioner who attends treats or advises any person suffering from any venereal disease shall—

- (a) Deliver to such person a warning notice as hereunder set forth:—

PUBLIC HEALTH DEPARTMENT.

Venereal Diseases Act, 1916.

Warning Notice.

You are suffering from a venereal disease. Venereal diseases are infectious. If you infect any person or do or permit or suffer any act likely to lead to the infection of any other person you are liable to a fine of £100 and to imprisonment for 12 months. You are warned not to marry until certified as cured.

- (b) Give such person the booklet issued by the Public Health Department entitled:—

Venereal Diseases.

Information relating to Venereal Diseases, Duties of Patients and directions to Parents and Guardians.

(2) Every medical practitioner who attends, treats or gives advice with respect to a child suffering from any venereal disease shall give to the parent or guardian or other person in charge of such child the booklet mentioned in clause (1) (b) above, and shall direct the attention of such parent or guardian or other person to that part of the booklet headed—Directions to Parents and Guardians.

5. (1) In the case of Syphilis no certificate of cure shall be given unless—

- (a) Three years shall have elapsed from the first appearance of the primary manifestation and
- (b) The patient shall have undergone treatment for a period of at least twelve months to the satisfaction of the medical practitioner in attendance and
- (c) There shall have been no manifestation of Syphilis since the completion of the last course of treatment provided that a period of at least three months has elapsed since same and
- (d) A sample of the patient's blood taken at least 48 hours after an injection of Salvarsan or an efficient substitute therefor shall have given a negative Wassermann's reaction when examined by a person approved by the Minister for the purpose. Provided that in the case where it is clinically inexpedient to use Salvarsan or its substitutes Wassermann's test shall be negative on two occasions separated by at least one month.

(2) No certificate of having ceased to be liable to convey syphilitic infection shall be given unless the conditions of

clause (1) above have been satisfied; provided that a certificate may be given if two years shall have elapsed from the first appearance of the primary manifestation and the other conditions specified in such clause have been satisfied; or if three years have elapsed with two years of satisfactory intermittent treatment even though the Wassermann reaction remain positive.

(3) In the case of Gonorrhoea no certificate of cure shall be given unless—

(a) All signs of inflammation shall have been absent for at least one month; and

(b) Microscopic examination by a person approved by the Minister for the purpose shall have failed to detect the presence of Gram negative diplococci resembling those of Gonorrhoea, such examination to include at least two specimens taken at intervals of at least one week.

(4) No certificate of having ceased to be liable to convey gonorrhoeal infection shall be given unless the conditions concerning a certificate of cure have been satisfied.

(5) In the case of Soft Chancre no certificate of cure or of having ceased to be liable to convey infection shall be given until the lesions have entirely healed.

(6) No certificate of cure of venereal disease or of having ceased to be liable to convey infection shall be given to any woman who is known to be a prostitute or who occupies visits or resides at any house known to be used for the purposes of or in relation to prostitution.

(7) No person shall use any certificate of cure of venereal disease or of having ceased to be liable to convey infection for the purposes of or in relation to prostitution.

(8) The certificate of cure of venereal disease or of having ceased to be liable to convey infection shall be as prescribed in Form D.

6. (1) No certificate of freedom from venereal disease shall be given to any woman who is known to be a prostitute or who occupies visits or resides at any house known to be used for the purposes of or in relation to prostitution.

(2) No person shall use any such certificate for the purposes of or in relation to prostitution.

(3) No certificate of freedom from venereal disease shall be given to any person who is known to have suffered from any such disease.

(4) The certificate shall be as prescribed in Form E.

7. The persons to whom a warrant of apprehension may be directed by a police magistrate for execution in pursuance of the provisions of section thirteen are:—

(a) Any person authorized for the purpose in writing by the Minister; or

(b) any member of the police force authorized for the purpose in writing by the Chief Commissioner of Police.

8. No person who has been apprehended under the provisions of section thirteen shall be detained for a longer period than is necessary for the purpose of ascertaining whether such person is suffering from any venereal disease and in no case shall the detention exceed four weeks.

9. The fee chargeable by any medical practitioner for issuing to any person any certificate of cure of or freedom from venereal disease or of having ceased to be liable to convey infection shall not exceed the sum of Ten shillings and sixpence.

10. The fees payable to medical practitioners for notices sent or given to the Medical Inspector pursuant to the provisions of sections eight and nine shall be as follow:—

(a) For every case which occurs in his own private practice Two shillings and

(b) for every case which occurs in his practice as medical officer of any public institution or of any prescribed, proclaimed, or established hospital or place One shilling: provided that such medical officer is not receiving any remuneration from the State.

11. Every medical practitioner shall forward to the Medical Inspector on or before the 31st January of each year a return of the number of cases of venereal disease treated by him and the number of cases cured during the preceding calendar year and such return shall be as prescribed in Form L.

12. (1) No person suffering from venereal disease shall carry deliver manufacture prepare or otherwise handle any food intended for consumption by any other person.

(2) Every person suffering from venereal disease shall take all reasonable precautions to prevent spread of infection by medium of towels soiled underclothing baths culinary utensils and closet seats and shall carry out the directions and instructions of the medical attendant.

(3) Every person, in charge of a child suffering from venereal disease, shall—

(a) provide a separate bed for the said child and

(b) provide separate towels and other toilet requisites and

(c) wash the said child in a separate bath and

(d) disinfect all soiled clothing by boiling or other effective means and

(e) prevent the said child from coming into contact with other children and

(f) carry out the directions and instructions of the medical attendant.

13. Any person contravening any provision of the Regulations shall be liable to a penalty of not more than Twenty pounds.

The remainder of the Regulations consist in the forms to be used for the purposes of the Act.

Correspondence.

THE "MYSTERIOUS DISEASE."

Sir,—In your issue of May 5 Dr. W. F. Litchfield, at a meeting of the New South Wales Branch of the British Medical Association, described a case of the "mysterious disease" from Bourke.

A number of patients have been under observation at the Townsville Hospital lately, suffering from a similar complaint. The patients, mostly children, gave a history of a sudden onset, with convulsions and high fever, and were admitted to the hospital soon after the first symptoms. They were unconscious, had convulsions off and on, and their temperatures for several days ranged between 100° and 105° F. Of other clinical symptoms some showed a slight stiffness of the neck and a fairly high pulse rate.

In the first case meningitis was suspected, and a cerebro-spinal puncture performed. The fluid withdrawn was clear and not under increased pressure, and its cell content was nearly normal but for a small increase of the polymorphonuclear leucocytes. The leucocyte count of the peripheral blood showed nearly normal conditions.

The bacteriological examination of the cerebro-spinal fluid gave entirely negative results.

A post-mortem examination performed on a case showed the meninges of the brain and the spinal cord nearly normal, except for well-marked hyperæmia.

In cross sections the brain substance was oedematous and hyperæmic. Sections of the spinal cord showed that the hyperæmia affected principally the slightly protruding grey substance, which was decidedly darker than normal.

The microscopical examination of the spinal cord revealed grave changes. The grey matter of the anterior horns was the seat of a well-marked cellular infiltration; a number of the large nerve cells were surrounded and invaded by polymorphonuclear leucocytes—neutrophages—and all stages between the early invasion and the complete disappearance of the large nerve cells were noticed. Numerous small hemorrhages were present. The blood-vessels, especially of the grey matter, were surrounded by dilated lymph spaces containing here and there a few scattered lymphocytes.

The microscopical appearance of the spinal cord was thus that typical of acute poliomyelitis.

It may be suggested, as a working hypothesis, judging by the analogy of the clinical pictures, that the Bourke cases are perhaps of the same nature.

A full clinical account and the detailed pathological findings will be published at a later date.

Yours, etc.,

A. BREINL.

The Australian Institute of Tropical Medicine,
Townsville, 12th May, 1917.

VINCENT'S ANGINA.

Sir,—After reading Dr. H. H. Willis' outline of his cases of Vincent's angina at Liverpool Camp (*The Medical Journal of Australia*, May 5, 1917) it might be of interest to narrate a case I saw at Lemnos early in August, 1915, whilst attached to the 3rd Australian General Hospital.

I was sent for at 4.15 a.m. (being night orderly officer) to see a man who had difficulty in breathing. I found an Australian infantry private in a small bell tent, in isolation, sitting up on a rug on the ground. He had arrived late the previous evening from the trenches, bearing a label "diphtheria." The night sister informed me that "his breathing seemed to be getting worse, and that he could scarcely swallow."

In appearance the man was rather thin and emaciated. He looked a peculiar dusky colour, and was markedly in distress with his breathing. The breath was most fetid, suggestive of malignant diphtheria.

The submaxillary glands were enlarged, but not painful, except on pressure. His temperature was 103° F., pulse 130 and respirations 46. Lungs and heart were normal.

On examination with a hurricane lamp and a candle the mouth showed gingivitis (no scurvy) and pyorrhoea. The throat was markedly swollen and cedematous, especially the palatal pillars and uvula. The right tonsil showed a dirty gray drabish like membrane, extending well into posterior zone of the tonsil. The exudate on the left tonsil was distinct and intact, whilst on the right side it appeared as an irregular (or serpiginous), indistinct ulcer, with scooped out edges about $\frac{3}{4}$ inch in longitudinal diameter.

A few hours later the patient got much worse. His dyspnoea was more orthopnoic, and he was becoming more cyanosed and restless.

Tracheotomy was performed by one of the surgeons of senior rank as an emergency, but only to give temporary relief, as death supervened shortly afterwards from respiratory paralysis (suffocation) and general septic toxæmia.

As differential diagnosis, in absence of microscopic examination, from malignant diphtheria, the characteristic appearance of the necrotic pseudo-membrane with extensive cedema appeal to me and some of my confrères I discussed it with as chief feature for discrimination.

From Ludwig's angina—absence of membrane and no tense, painful cervical and pharyngeal cellulitis (streptococcus).

As no pathological equipment had arrived, nor a laboratory installed, it is to be regretted that swabs and smears could not have been taken and thus clinch the diagnosis bacteriologically.

The question, to my mind, arises, does the spirillum and bacillus fusiformis exist with the Klebs-Löffler bacillus?

Yours, etc.,

T. GARNET LEARY, M.D. (Edin.), F.R.C.P.E.
Sandringham, Victoria, May 15, 1917.

DRUGS AND THE CEREBRO-SPINAL FLUID.

Sir,—We see statements from time to time that this drug or other is not secreted into the cerebro-spinal fluid, and, therefore, cannot produce its effects upon the cerebro-spinal system.

I should like to know what evidence there is in support of what appears to me to be a most absurd theory.

We have been told, for instance, that salvarsan cannot get into the fluid, because it has so large a molecule, but then drugs like iodide of potash, which has a very small molecule, do not get into the cerebro-spinal fluid either.

The fact is that the cerebro-spinal fluid is a highly specialized fluid secreted for the purpose of forming a water-bed in which the brain and spinal cord may float. It has nothing to do with their nutrition whatever; this is wholly carried out by the soakage of lymph from the blood vessels.

There is no evidence to show that any cerebro-spinal fluid whatever is absorbed by the brain or spinal cord; on the contrary, we know that the current passes outwards by the lymph spaces of the cerebral and spinal nerves.

What physician who wished to obtain the physiological effects of morphine or strychnine would think of injecting

them into the spinal theca? Their effects are produced very rapidly when once they enter the blood stream.

The effect of local anaesthetics injected into the spinal theca has no bearing on the matter. These pass out with the stream into the lymphatics of the nerves and paralyse the axones there.

We know then that drugs entering the blood stream do very rapidly reach all parts of the cerebro-spinal system, whereas we have no evidence that drugs entering the spinal theca ever do so; indeed, all physiological evidence is to the contrary.

The intra-theical injection of salvarsanized serum seems to me to be the last word in therapeutic absurdity.

Perhaps some neurologist will be good enough to give us some evidence to the contrary.

Yours, etc.,

ARTHUR S. VALLACK,

233 Macquarie Street, Sydney.

May 17, 1917.

Books Received.

GLAUCOMA. A HANDBOOK FOR THE GENERAL PRACTITIONER, by Robert Henry Elliot, M.D., B.S., Lond., with six plates and other illustrations; 1917. London: H. K. Lewis & Co., Ltd. Demy 8vo., pp. 60. Price, 3s. 6d. net.

MEDICAL AND SURGICAL REPORTS OF THE EPISCOPAL HOSPITAL, PHILADELPHIA, Volume III., edited by Astley P. C. Ashhurst, M.D.; illustrated; 1915. Philadelphia: Wm. J. Dornan. Royal 8vo., pp. 356.

THE TREATMENT OF TABETIC ATAXIA by means of systematic exercise, by Dr. H. S. Frankel; second revised and enlarged English edition, with 129 illustrations, by L. Freyberger, J.P., M.D., 1917. London: William Heinemann. Demy 8vo., pp. 200. Price, 12s. 6d. net.

Proceedings of the Australian Medical Boards.

NEW SOUTH WALES.

The following have been registered under the provisions of "The Medical Act, 1912 and 1915," as duly qualified medical practitioners:—

Asher, Victor, M.B., Mast. Surg., 1917, Univ. Sydney.
Bamber, Leo, M.B., 1917, Univ. Sydney.
Cuthbert, Harold William, M.B., 1917, Univ. Sydney.
Hope, Alfred Joseph, M.B., 1917, Univ. Sydney.
Howell, Hessel George, M.B., 1917, Univ. Sydney.
Hudson, Alfred Roy, M.B., 1917, Univ. Sydney.
Kortum, Ludwig August, M.B., 1917, Univ. Sydney.
Martin, Robert, M.B., 1917, Univ. Sydney.
Stanton-Cook, Lance Hayward, M.B., 1917, Univ. Sydney.
Story, Alfred Cuthbert, L.S.A., London, 1904.
Thompson, James, M.B., 1898, Bac. Surg., 1899, Univ. Melbourne.
Smithson, Oliver Cromwell, M.R.C.S., Eng., 1896; Lic. R. Coll. Phys., Lond., 1896; F.R.C.S., Irel., 1909.

Additional Registration.

Inglis, William Keith, M.D., 1917, Univ. Sydney.

VICTORIA.

The following have been registered under the provisions of Part I. of the "Medical Act, 1915," as duly qualified medical practitioners:—

Donovan, Francis Gerald, M.B., Ch.B., 1917, Univ. Melbourne, "The Wattles," Murrumbena Road, Murrumbena.
Hurley, Leslie Everton, M.B., Ch.B., 1917, Univ. Melbourne, 15 Victoria Avenue, Ballarat.
Kelly, John Joseph, M.B., Ch.B., 1917, Univ. Melbourne, 215 Johnston Street, Collingwood.
Kershaw, Hilda Burn, M.B., Ch.B., 1917, Univ. Melbourne, Canterbury Road, Tunstall.
Thorne, Albert Robert, M.B., Ch.B., 1917, Univ. Melbourne, "Tiverton," Alma Road, Caulfield.
Stewart, William Allan, M.R.C.S., Eng., L.R.C.P., London, 1913, 394 Sydney Road, Brunswick.

The following names of deceased practitioners have been removed from the Register:—

Guthell, Johannes August Emil.
Reid, Matthew Alexander.
Bailey, Guy Brooke.

QUEENSLAND.

The undermentioned has been registered under the provisions of the "Medical Act of 1867" as a duly qualified medical practitioner:—

McCutcheon, John, Mount Morgan Hospital, M.B., Ch.B., Univ. Edin., 1906.

Additional Registration.

Cameron, Gavin Holme, Ch.M., 1917, Univ. Sydney.

Medical Appointments.

Dr. Victor Evelyn Collins has been appointed Acting Government Medical Officer at Cairns, Queensland, Acting Visiting Surgeon to His Majesty's Prison, Cairns, and an Acting Health Officer for the purposes of "The Health Acts, 1900 to 1917," during the absence of Dr. Philip Sylvester Clarke.

During the absence of the Commissioner of Public Health, Queensland, Dr. John Erskine Thomson has been appointed to act as the Deputy of the Commissioner. The appointment is to date from May 10, 1917.

Dr. Charles Mitford Lilley has resigned his position as Acting Medical Superintendent, Brisbane Hospital.

The resignation of Dr. Ernest Charles Jennings as Acting Medical Superintendent, Hospital for the Insane, Ipswich, Queensland, is announced in the *Queensland Government Gazette* of May 19, 1917.

His Excellency the Lieutenant-Governor has been pleased to approve of the appointment of Dr. Richard Arthur, M.L.A., as a Member of the Board of Directors of the Royal Prince Alfred Hospital, Sydney, the Honourable Charles Gregory Wade, K.C., Agent-General for New South Wales, having resigned.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xvii.

Brisbane Hospital, Junior Resident Medical Officers.

Royal Australian Naval Medical Service, Temporary Surgeons.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch. TASMANIA.

(Hon. Sec., Bel-
lerive, Tasmania.)

VICTORIA.

(Hon. Sec., Medi-
cal Society Hall,
East Melbourne.)

QUEENSLAND.

(Hon. Sec., B.M.A.
Building, Ade-
laide Street, Bris-
bane.)

APPOINTMENTS.

Honorary Medical Officers in all State-
aided Hospitals in Tasmania.

Brunswick Medical Institute.
Bendigo Medical Institute.
Prahran United F.S. Dispensary.
Australian Prudential Association Pro-
prietary, Limited.

National Provident Association.
Life Insurance Company of Australia,
Limited.

Mutual National Provident Club.

Medical Officers to the Selwyn Hos-
pital, North Queensland.
Brisbane United Friendly Society In-
stitute.

Branch.

SOUTH AUS- TRALIA.

(Hon. Sec., 3
North Terrace,
Adelaide.)

WESTERN AUS- TRALIA.

(Hon. Sec., 230
St George's Ter-
race, Perth.)

APPOINTMENTS.

The F.S. Medical Assoc., Incorp.,
Adelaide.

Swan District Medical Officer.
All Contract Practice Appointments in
Western Australia.

NEW SOUTH WALES.

(Hon. Sec., 30-34
Elizabeth Street,
Sydney.)

Australian Natives' Association.
Balmmain United F.S. Dispensary.
Canterbury United F.S. Dispensary.
Leichhardt and Petersham Dispensary.
M.U. Oddfellows' Med. Inst., Elizabeth
Street, Sydney.
Marrickville United F.S. Dispensary.
N.S.W. Ambulance Association and
Transport Brigade.
North Sydney United F.S.
People's Prudential Benefit Society.
Phoenix Mutual Provident Society.
F.S. Lodges at Casino.
F.S. Lodges at Lithgow.
F.S. Lodges at Parramatta, Penrith,
Auburn and Lidcombe.
Newcastle Collieries — Killingworth,
Seaham Nos. 1 and 2, West Wall-
send.
Metropolitan Colliery, Helensburgh.

NEW ZEALAND: WELLINGTON DIVISION.

(Hon. Sec., Wel-
lington.)

Friendly Society Lodges, Wellington,
N.Z.

Diary for the Month.

May 29.—N.S.W. Branch, B.M.A., Med. Politics Committee;
Organization and Science Committee.

May 30.—Vic. Branch, B.M.A., Council.

June 1.—Q. Branch, B.M.A., Branch.

June 6.—Vic. Branch, B.M.A., Branch.

June 8.—N.S.W. Branch, B.M.A., Clinical.

June 9.—S. Aust. Branch, B.M.A., Council.

June 12.—Tas. Branch, B.M.A., Council and Branch.

June 12.—N.S.W. Branch, B.M.A., Ethics Committee.

June 14.—Vic. Branch, B.M.A., Council.

June 19.—N.S.W. Branch, B.M.A., Executive and Finance
Committee.

June 20.—W. Aust. Branch, B.M.A., Branch.

June 20.—South Sydney Med. Assoc. (N.S.W.).

June 22.—Q. Branch, B.M.A., Council.

June 26.—N.S.W. Branch, B.M.A., Medical Politics Com-
mittee, Organization and Science Committee.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any
circumstances be returned.

Original articles forwarded for publication are understood to be offered to
the *Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical
Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney,
New South Wales.